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ABSTRACT

This publication is one of a series summarizing recent research on adolescent drug abuse and its prevention. The report provides an overview of research and reviews its implications for dealing with substance abuse among Latino youth, placing new information in the context of past findings. Research has shown that drug use patterns in several Latino subgroups are significantly different from those found in the U.S. general population, and that there are high levels of use of many drugs within segments of this population. Although there has been no parallel expansion of information specifically on Latino youth, the existing evidence clearly indicates that they are a population at serious risk of developing problems with several substances, and that prevention programs have not been adequately addressing the unique needs and circumstances of this population. The report is divided into an Overview and Abstracts. The Overview is comprised of the following sections: (1) Introduction; (2) Research Problems; (3) Use Prevalence and Patterns; (4) Correlates of Use, including environmental factors, family background, interpersonal factors, gender, cultural values, acculturation, and group variation; (5) Prevention; and (6) Conclusion. The Abstracts provide citations and annotations for 14 journal articles and research reports. A 140-item reference list and a list of author addresses are appended. (AF)

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SUBSTANCE ABUSE AMONG LATINO YOUTH

Prevention Research Update, Number 3

Spring 1989

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Far West Laboratory for Research and Development
1855 Folsom Street
San Francisco, California 94103

SWRL Educational Research and Development
4665 Lampson Avenue
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Gregory A. Austin

and

M. Jean Gilbert

Western Center for Drug-Free Schools and Communities

Northwest Regional Educational Laboratory
101 S.W. Main Street, Suite 500
Portland, Oregon 97204

CENTER

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Prevention Research Update is a quarterly current awareness service, prepared by the Western Center for Drug-Free Schools and Communities, which summarizes recent research on adolescent drug abuse and its prevention. Each issue abstracts and reviews the implications of new research dealing with a major topic of concern in the field, placing the new information in the context of past findings. The goal is to help bridge the communications gap between the researcher, the practitioner, and the general population, by disseminating research findings in an accessible manner and providing an introductory review of their significance. Abstracts are arranged alphabetically by first author's last name. Preceding the abstracts is an overview discussion in which studies abstracted are identified by an asterisk (*). References to all documents cited are located following the abstracts. Copies are available from all the Western Center sites, which also maintain reprints of the articles summarized.

SUBSTANCE ABUSE AMONG LATINO YOUTH

Gregory A. Austin, Ph.D.
Western Center for Drug-Free Schools and Communities
Southwest Regional Educational Laboratory

and

M. Jean Gilbert, Ph.D.
University of California, Los Angeles
Chicano Studies Department

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OVERVIEW

INTRODUCTION

Latinos are one of the largest, youngest, and fastest-growing of the nation's subgroups. They comprise over 7% of the U.S. population and are increasing more rapidly than any other racial/ethnic group. Furthermore, the median age of Latinos is 23, compared with 31 for non-Latinos; half the Latino population is now under age 18. Thus, a very large proportion of the youth population in the next twenty years and beyond will be of Mexican American, Puerto Rican, Central American, and Cuban ancestry. These demographic trends make it imperative that we learn more about substance abuse within the Latino community and how to prevent it.

During the last decade, there has been a marked increase in research on substance use and related problems among Latino adults. Although there are still large gaps in our knowledge, particularly in regard to differences among the three major Latino subgroups (Mexican American, Puerto Rican, and Cuban American), this research has shown that drug use patterns in several Latino subgroups are significantly different from those found in the U.S. general population and that there are high levels of use of many drugs within segments of this population.

Unfortunately, there has been no parallel expansion of information specifically on Latino youth, and much of the data that are available are contradictory and limited in their generalizability, reliability, and, most importantly, usefulness to persons providing services targeted to Latino adolescents. The existing evidence does clearly indicate, however, that Latino youth are a population at serious risk of developing problems with several substances and that prevention programs have not been adequately addressing the unique needs and circumstances of this population.

RESEARCH PROBLEMS

Determining the extent of alcohol and other drug use, and the frequency and nature of resultant problems, among Latino youth is hampered by several limitations in the existing data. Most of the extant information is epidemiological and limited in value by significant problems of interpretation (Humm-Delgado and Delgado 1983). The first major difficulty is the practice of aggregating all Latino subgroups under a single label. The three major Latino groups are a diverse population. As will be shown, there are important intergroup differences in substance use patterns. For example, studies conducted in specific Texas and Colorado locales show drug use rates among Latinos that exceed those shown for Latinos in national surveys (Watts and Wright 1988*; Chavez, Beauvais, and Oetting, in press). However, in many large-scale national youth surveys (Johnston, O'Malley, and Bachman 1987; Rachel, Maisto et al. 1982), the terms "Latino" or "Hispanic" are used as a convenient catch-all label that subsumes persons of widely variant cultures under one category for the convenience of analysis. This is usually done because the number of Latino adolescents participating in these studies is quite small, but the result is that young people from widely divergent cultural backgrounds are homogenized into a "group" that exists only as a convenient abstraction, often giving rise to uninterpretable results. Local or regional studies offer some of the most useable data on Latino subgroup differences, although they add to the complexity of the picture. But most of the studies have focused on Mexican Americans in the southwest; and we have very little data as yet about Cuban-Americans. As a result, there are large gaps in our knowledge. This situation creates a particular problem for policy makers and program planners. Because Latino subgroups are geographically concentrated (Mexican Americans in the Southwest, Puerto Ricans in the Northeast; and Cuban Americans in the Southeast), public officials need group-specific data in order to design culturally relevant interventions for these localized and culturally discrete groups. A related problem is that research on Latino populations has often not employed comparison groups of Anglos, which limits our ability to determine the unique needs and problems of Latinos.

Problems of interpretation are compounded when researchers do not report their data broken down by gender. As will be discussed, gender differences in drug use prevalence are much more extreme among Latinos than in the general population. When data are aggregated without gender distinctions, the lower use of drugs by adolescent Latinas tends to "wash out" the high prevalence of drug use by their male counterparts, thus obscuring the existence of a high-risk population.

Other problems result from sampling strategies used by researchers. For example, many, if not most, epidemiological surveys of adolescents are conducted among school populations (e.g., Barnes and Welte 1986; Jackson, John et al. 1981; Johnston, O'Malley, and Bachman 1987; Kandel, Single, and Kessler 1976; Maddahian, Newcomb, and Bentler 1985; Rachel, Maisto et al. 1982; Skager, Fisher, and Maddahian 1986). Latinos in these school-based studies generally have substance use rates that are similar to or below those of whites and greater than those of blacks and Asians. However, the high school dropout rate for Latino students is estimated in some localities to be 45%, at times as high as 85% (Malone 1985; Watts and Wright 1988*). Their school completion rate is 20% below that for blacks, where socioeconomic status is approximately equivalent (Schinke, Moncher et al. 1988*:812). As a result there are many Latino youth who do not participate in school-based surveys, and those Latino youth who do remain in school are likely to constitute a non-representative sample. Evidence indicates a much higher abuse risk among this dropout population. For example, a sample of Mexican-American junior high school students identified as potential dropouts reported marijuana use at twice the level found in most school studies (Bruno and Doscher 1979). A study focused on drug use among teens in a Los Angeles barrio housing development also showed exceedingly high levels of drug use as compared to national data (Padilla, Padilla et al. 1977, 1979).

This fragmented picture of adolescent Latino substance use is complicated by a variety of problems of definition and measurement. Studies are non-comparable because researchers use different measures of initiation, prevalence, quantity, and frequency of drug use. Immigrant youth are often lacking in English-language literacy and illegal aliens are suspicious of any research into illicit behavior. In addition, many instruments have not been evaluated in terms of validity and reliability among Latinos. It can be seen that there are considerable barriers confronting planners and policy makers seeking to base intervention strategies for Latino youth on empirically defined substance abuse patterns and problems.

USE PREVALENCE AND PATTERNS

General population and adult studies of Latinos consistently show that Mexican-American and, to a slightly lesser extent, Puerto-Rican men are at especially high risk for alcohol abuse, dependence, and related problems (Burnam, Hough et al. 1987; Caetano 1985; Haberman 1987). They have among the highest rates of severe social, emotional, and financial consequences from drinking (Rouse 1987:136). Mexican American and Puerto Rican women, as a result of a traditional pattern of greater abstinence and lower levels of drinking, appear to be at less risk for alcohol problems than other women in the U.S., but among acculturated and younger Mexican American women, the amount of drinking and heavier drinking is rapidly rising (Caetano 1987; Holck, Warren et al. 1984; Gilbert 1987).

Regarding adult use of illicit drugs, we have far less information and the available data are contradictory. There is little epidemiological evidence to support the stereotype that Latinos in general have higher levels of use prevalence than Anglos or other ethnic groups (Booth, Castro, and Anglin, in press). For example, the National Household Survey conducted by the National Institute on Drug Abuse (NIDA 1988) reveals that Latinos have lower prevalence rates than whites and blacks with respect to the use of most drugs. However,

other research has indicated that drug abuse is a serious, chronic, and multigenerational problem in many Latino families and communities (Booth, Castro, and Anglin, in press). Data collected at the local level and at drug treatment centers and emergency rooms indicate that Latinos have more drug-related problems. Nationally, the National Drug Abuse Treatment Utilization Survey found that Latinos were 2.7 times more likely to be in treatment for drug abuse related problems than were whites. CODAP data suggest important regional differences in drug preferences but disproportionately high levels of hard drug use in general (Rouse 1987). Emergency room data indicate that Latinos are more likely than whites to report primary presenting problems with heroin, cocaine, or PCP (Malone 1985: Rouse 1987). Statistics based on treatment, as well as arrest, populations are distorted since Latinos and other minorities are frequently overrepresented in them (Humm-Delgado and Delgado 1983:72; Trimble, Padilla, and Bell 1987). Nevertheless, hard drug use would appear to be a special problem among Latinos. As to subgroups, Mexican Americans seem to have higher rates of marijuana and other drug use than other Latino groups (Rouse 1987:137), and narcotic addiction appears to be an especially severe problem among some segments of the Puerto Rican communities in the U.S. (Trimble, Padilla, and Bell 1987:28, 30; Schinke, Moncher et al. 1988*:811; Malone 1985:137).

These data indicate considerable risk for Latinos, especially males, to develop substance abuse problems in the course of a lifetime. We will now examine in more detail the data on use prevalence and patterns for specific drugs within the adolescent population.

Alcohol

Generally, prevalence data from both national (Rachel, Maisto et al. 1982; NIDA 1988) and local studies indicate a somewhat lower or similar prevalence of use among Latino youth than whites, to whom their patterns of use seem to be most similar. But alcohol use among Latinos is still a serious problem, especially among males. Use prevalence is higher than among many other ethnic groups and Latinos appear to suffer higher rates of alcohol-related problems. Furthermore, male adolescent drinkers show higher rates of heavy drinking than the general population. Research also tends to show that Mexican Americans are more likely to drink and to drink at higher levels than Latinos in the Northeast, where the population is predominantly of Puerto Rican background.

Most studies report similar results regarding gender differences in prevalence rates, age of initiation, and level of drinking; that is, Latino boys are more likely to drink and to drink at an earlier age and in higher quantities than Latinas. However, gender differences in prevalence rates are not as great in adolescent Latino samples as they are in adult groups because adolescent Latinas are rapidly entering the drinking population (Gilbert 1987). For example, Mexican-American adolescent girls are almost as likely, or in a few localities more likely, to be drinkers than boys (Chavez, Beauvais, and Oetting, in press). Another fairly consistent finding is that Latino boys who drink have a heavier pattern of use than do Latinas or Anglos, and these boys experience more alcohol-related problems. Caetano (1985) also found that among young adult males, heavy use is higher than among the general population, a pattern of use that appears to begin in late adolescence.

Aside from these few consistent findings, a more precise understanding of drinking patterns among Latino youth is difficult to obtain because local-level studies show considerable variance in the patterns of alcohol use among different groups of Latino youngsters as well as differences in the age of onset.

Mexican Americans. A majority of these studies have been conducted in California or the Southwest, where Mexican Americans make up the bulk of the Latino group. Secondary analysis of data (Gilbert 1987) from California's statewide study of substance abuse among junior and senior high school students (Skager, Fisher, and Maddahian 1986) found that fully 60% of Latino boys and 76% of Latino girls had used alcohol by grade nine. (Interestingly, among Anglos in the 9th grade, the proportions of male and female drinkers were nearly equal: 79% of the boys and 78% of the girls had used alcohol by this age.) In a Los Angeles non-random barrio sample (Perez, Padilla et al. 1979, 1980), 33% of the boys and 14% of the girls in the age range 9-11 had already taken their first drink; by 12-14, 59% of the boys and 42% of the girls had done so. Mexican American Job Corps trainees in San Diego, studied by Morgan, Wingard, and Felice (1984), reported a median age of first use of alcohol of 12 years for boys and 13 for girls. Coombs, Fawzy, and Gerber (1986), examining a group of 9-17 year olds in a community sample drawn primarily from Boys Clubs in California, reported that 51% of the Mexican American adolescents, as compared with 61% of the Anglos, had consumed alcohol.

In Texas, Watts and Wright (1988*) found that just 23% of the high school age Mexican American boys they studied had had their first drink at twelve or younger, while only 6% of their female counterparts were introduced to alcohol this early. Among Anglo boys and girls in their sample, the percentages were 37% and 20%, respectively. Chavez, Beauvais, and Oetting (in press), after surveying students aged 12 to 17 in a rural Colorado town, found that 82% of the Mexican American boys and 88% of the girls reported having tried alcohol, while 74% and 95% of the Anglo boys and girls, respectively, had done so.

Puerto Ricans. Prevalence and onset data derived from studies undertaken in the Northeast, where most Latinos are of Puerto Rican descent, show a more conservative pattern. Singer (1988) reports that only 31% of a Hartford, Connecticut, community-based Latino adolescent group, aged 13-17, claimed to have consumed alcohol. For those teens who were drinkers, the mean age of introduction was thirteen. Additionally, Kandel, Single and Kessler (1976), reporting on the prevalence of drug use in a representative sample of New York State high school students, indicated that Latino youth had the lowest prevalence rates for hard liquor (50%) and beer and wine (65%) of all ethnic groups studied, with the exception of Orientals. In

another statewide survey of alcohol use among New York students, similar results were reported except that blacks had a lower use prevalence than Latinos (63%; whites reported 76%) (Barnes and Welte 1986; Welte and Barnes 1987). However, Welte and Barnes (1987) speculate that the low drinking estimates for black and Latino youth may be affected by the school dropout rate in these populations

Drinking Levels and Problems. Information on the quantity and frequency of alcohol use among Latino adolescent drinkers is scant and difficult to compare across studies because different measures of consumption have been used. Some consistencies have been found, nonetheless. Overall, the level of alcohol use among Latino adolescents has been seen to vary with age and sex, with older adolescents and males reporting higher levels of quantity and frequency than younger adolescents and females (Barnes and Welte 1986; Guinn and Hurley 1976; Padilla, Padilla et al. 1977; Perez, Padilla et al. 1979, 1980; Trotter 1982; Singer 1987). This pattern is consonant with that found in the general adolescent population. Furthermore, the results from national and several local studies suggest that Latino youngsters who do drink consume heavier quantities and experience more drinking problems than do other adolescents.

Sanchez-Dirks (1978) looked specifically at the 1,509 Latino respondents from a national alcohol survey of 13,122 students in grades 7-12. She found that the Latinos showed a lower percentage of drinkers than the Anglos and a higher percentage of abstainers. However, among the drinkers, Latinos had the second highest percentage of heavy drinkers. Latino males had the highest mean consumption rates.

Some California studies show that Latino adolescents have drinking levels similar to Anglos, though greater than blacks and Asians (Maddahian, Newcomb, and Bentler 1986). Data from the statewide California student survey (Skager, Fisher, and Maddahian 1986) revealed that 47% and 41% of 9th-grade Latinos and Latinas, respectively, had experienced at least one episode of intoxication, compared with 88% and 57% for Anglo boys and girls.

Watts and Wright (1988*), in studying high school students in Texas, found that whites of both sexes were more likely to use alcohol and tobacco than Latinos, but Latino drinkers, both male and female, tended to drink more frequently and reported more occasions on which they consumed five or more drinks than did Anglo adolescents. The same findings held true when Watts and Wright compared their Texas youth with a national sample from the NIDA High School Seniors Survey. In a survey of under-eighteen adolescents in Los Angeles, Belenko and Kehrer (1978) found that 20% of Mexican American youth, as compared with 17% of white and 11% of black youth, could be categorized as "problem drinkers" (drinking in excess of 90 drinks per month or reporting an alcohol-related problem), in spite of the fact that fewer Mexican Americans were drinkers. Among the Job Corps participants studied by Morgan, Wingard, and Felice (1984), Mexican American youth reported a higher rate of problems related to drinking than whites, blacks, or Asians.

Similarly, among Puerto Rican students in New York Barnes and Welte's (1986; Welte and Barnes 1987) research disclosed a higher average daily consumption of alcohol than among whites and blacks, though less so than Native Americans, even though their use prevalence was lower than whites. Furthermore, all minority groups experienced a greater incidence of drinking-related misconducts than whites, indicating that drinking problems are more easily acquired among lower SES groups. (On this point, it should be noted that Dawkins and Dawkins (1983) found drinking of lesser importance in predicting criminal offenses among a group of Latino male juvenile offenders than among their white and black counterparts.) Again, Singer (1988) reports more conservative data for Hartford, Connecticut; there were much lower levels of alcohol consumption among Puerto Rican teenagers than among those found in national youth samples. Unfortunately, no Hartford sample of non-Latinos was comparatively assessed

Illicit Drug Use

If not enough is known about the alcohol use patterns of Latino youth, even less is known about the prevalence and patterns of illicit drug abuse. Generally it appears that among students the overall level of use of most illicit drugs is not greater than among Anglos, but it is greater than among other racial groups with the exception of Native Americans. Furthermore, Latino males have a greater involvement in hard drug use and, again, Latinos are more prone to drug-related problems (Bachrach and Sandler 1985:1178; Humm-Delgado and Delgado 1983:74). Regarding specific Latino youth groups, Mexican Americans appear to be most heavily involved with marijuana and inhalants; Puerto Ricans and Cubans, with cocaine. The picture is more complex for heroin, but suggests a higher level of use among Mexican Americans and Puerto Ricans than among whites.

In NIDA's 1985 National Household Survey, among those aged 12-17, whites reported the highest lifetime use of marijuana, inhalants, hallucinogens, PCP, prescription stimulants, sedatives, and tranquilizers. Generally, blacks reported the lowest rates, with Latinos falling in between, except for cocaine, as discussed below (NIDA 1988). Analyzing data from NIDA's National High School Seniors Survey, Watts and Wright (1988*) determined that Latino males were more likely than white males to report use of heroin and cocaine but not other drugs.

Several localized studies, both student and community, suggest a greater involvement by Latinos than whites in inhalant, heroin, and cocaine use than do national surveys (Beschner and Friedman 1985:973-974, 979-980). In one of the few studies comparing drug use among different Latino subgroups (but unfortunately without an Anglo comparison sample), the HHANES national household survey (NIDA 1987*) found both similarities and differences, with Mexican Americans and Puerto Ricans being more similar to each other than to Cuban Americans, who used substantially less cocaine, marijuana, inhalants, and sedatives (heroin was not examined).

Data from California student surveys consistently show similarities in level and patterns of use among Anglos and Latinos. In an ongoing multiethnic study of Los Angeles students, patterns of use among whites and Latinos (Mexican Americans) were very similar, but whites showed the highest levels of consumption of all drugs. Among five ethnic groups studied, Latinos had the second to the lowest frequency of use of all drugs (including alcohol), followed only by Asians. Whites had a significantly larger involvement with substance use in general than did Asians or Latinos (Maddahian, Newcomb, and Bentler 1986; Newcomb, Maddahian et al. 1987). In the most recent California statewide survey of 7th, 9th, and 11th graders (N=7,000), Skager found that "high-risk" users (as defined largely by dangerous drug-using behaviors) in 9th grade were predominantly white (15.5%) and Latino (15.1%), followed by Native Americans (11.6%), blacks (6.5%), and Asians (5.3%). Interestingly, by grade 11, Native Americans had moved up to first place. Abstainers in both grades included the least number of whites, followed by Latinos. Among "conventional" users (students involved in relatively less dangerous patterns of use), similar ethnic relationships were found (Skager, Frith, and Maddahian 1988; Skager and Frith 1989).

In an 18-month ethnographic study of drug use among 400 Boys Club youths between ages 9 and 17, divided about equally between Anglo and Latino (apparently Mexican Americans in Los Angeles), the two ethnic groups differed most on the use of alcohol and cigarettes. Neither ethnicity or social class was significantly related to patterns of drug use (Coombs, Fawzy, and Gerber 1986).

On the other hand, particularly high levels of use of marijuana, inhalant, and PCP were found in the barrio surveys conducted by Padilla and Perez in the mid- and late 1970s.

In Texas, Guinn and Hurley (1976) compared the use of drugs between students in the Lower Rio Grande Valley and those in Houston. The former were all Mexican American; the latter, half Anglo, a third black, and only 11% Mexican American. Although no difference was reported for alcohol consumption (64% for both samples), Houston students reported more use of all classes of drugs. However, the significance of this comparison of a small town Latino population with a mixed urban population is questionable.

Among Texas high school students, Watts and Wright (1988*) found no significant differences between Latinos and whites of either sex in overall drug use (excluding alcohol and tobacco), but rates were slightly higher for Latino males than for white males. In general, their data indicated that Latino males tended to use more heroin, marijuana, and LSD than did white males. There were few differences in lifetime drug use between Latinos and whites, except that Latino males were more than twice as likely to report heroin use (8.7% vs 4%). Latino males were significantly more likely to be current (last month) users of marijuana and LSD and also to have higher, but not significantly different, levels of the use of cocaine, amphetamine, inhalants, heroin, quaaludes, barbiturates, and tranquilizers. Texas Latinos were significantly more likely than the Latinos in the National Seniors Survey to use drugs, possibly because they were more acculturated or because, given the high dropout rate of Latinos, those high school seniors surveyed nationally included more Latinos who had not succumbed to drug and alcohol problems. Overall, the data suggested that Mexican American males in Texas form a unique drug-using subculture in relation to their white counterparts and to Mexican American females.

The most recent Texas state survey of secondary school students further indicates a worsening situation. Although Latinos generally again fell between whites and blacks in level of lifetime use, the percentage of Latino and black who used psychoactive substances increased more sharply between 1980 and 1988 than the percentage of whites (Fredlung, Spence, and Maxwell 1989).

Among New York students, Latinos, Asians, and whites were found to be in the intermediate range of the mean number of times illicit drugs had been used (lifetime), surpassed by Native Americans, but followed by blacks and West Indians (Welte and Barnes 1987:331).

Regarding other drug use, gender differences are also less noticeable among the young than among adults, but more pronounced than is evident for alcohol. Males are almost invariably shown to be heavier users of all drugs than females. However, there are indications that, as is the case with alcohol, this gender gap is being breached in some locales. In one study, Chavez, Beauvais, and Oetting (in press) found that Latino girls were largely responsible for the higher drug involvement that was found among Latino compared with Anglo youth. McBride, Weppner, and McCoy (n.d.) also found that Cuban American youth in treatment were more likely to be younger and female than other treatment populations. Bruno and Doscher (1979) found more LSD and amphetamine use among California girl students and more marijuana and alcohol use among boys.

Some more precise data on the use of individual drugs by Latinos will now be reviewed.

Cocaine. There is very little information on cocaine use among Latino youth. The HHANES survey would suggest that this is because use does not generally begin until age 20 and over (NIDA 1987*). The highest level of cocaine use appears to occur among Puerto Ricans (NIDA 1987*; Page 1980; Trimble, Padilla, and Bell 1987:32-33). The HHANES study shows that proportionately more Puerto Ricans (21.5%) than Mexican Americans (11.1%) or Cuban Americans (9.2%) had ever used cocaine. Heavy use in the Puerto Rican population may account for the finding that among youths age 12-17 in the 1985 National Household Survey, Latinos had the highest rate of lifetime and current cocaine use (NIDA 1988). Among Latinos, 6.3% in this age group had used cocaine, as compared with 5.1% of whites and 2.9% of blacks. Within an adolescent treatment sample of Cuban Americans in Miami, cocaine was the second most popular drug, used by 80% (compared with 82.5% for marijuana), with almost half using several times a week (Szapocznik, Perez- Vidal et al. 1988*). Data reviewed by Watts and Wright (1988*) indicate that while cocaine rates were higher among Latinos than among whites in the National

Seniors Survey sample, they were lower among Mexican Americans than among Latinos as a whole.

Heroin. Only fragmented information about heroin use within the adolescent Latino population is available (Humm-Delgado and Delgado 1983:74). Unfortunately, neither the HHANES (NIDA 1987*) nor the National Household Survey (1988) included questions on the respondents' use of heroin. Among adolescent Latino students, its use appears to be very low (Barrett, Simpson, and Lehman 1988*; Bachrach and Sandler 1985; Ladner and Scopetta 1979). On the other hand, Watts and Wright (1988*) found that Mexican American male students in Texas and Latino males in the National Seniors Survey were significantly more likely than white males to report use of heroin.

In a study of barrio gangs in Los Angeles in the mid-1970s, Moore (1978) made the following four observations: (1) Chicano youth gangs have been consistently innovative in drug use; (2) most heroin use in Chicano barrios begins with gangs; (3) a high proportion of all gang youth become addicted; and (4) the prison experience of Chicanos is predominantly within a context of narcotics offenses. She suggested that these features of heroin use had not be previously understood because researchers on addicts did not notice juvenile behavior. Unfortunately, although she examined in detail the development and characteristics of the markets for heroin and other drugs in the barrio, she provided no statistics on use prevalence.

Inhalants. National statistics indicate that the prevalence of inhalant use among Latinos is not significantly higher than among many other youth populations, but it is a serious problem. According to the 1985 National Household Survey (NIDA 1988), whites have the highest rate of overall inhalant use, although Latinos reported higher lifetime use of glue. Watts and Wright (1988*) found no differences in inhalant use between Latinos and whites in a national sample of high school seniors. The HHANES survey did not find inhalants to be widely used by any Latino group, although inhalant use was more than twice as high among Mexican Americans in the 12-17 age group than among the adolescents in the other two Latino groups (NIDA 1987*).

Historically, however, the highest prevalences for inhalant use have been found in relatively isolated communities such as Indian reservations or small Latino communities (Crider and Rouse 1988:2; regarding Native Americans, see Austin 1989). Several studies have identified Latino adolescents, principally Mexican-American males from a disadvantaged background, as a population with a particularly high prevalence of inhalant use (Bachrach and Sandler 1985; Barrett, Simpson, and Lehman 1988*; Chavez, Beauvais, and Oetting, in press; Cohen 1979; Dworkin and Stephens 1980; Gilbert 1980; Lund, Johnson, and Purviens 1978; Mason 1979; Padilla, Padilla et al. 1977, 1979; Perez, Padilla et al. 1979, 1980; Reed and May 1984; Rodriguez-Andrew 1985; Santos de Barona and Simpson 1984; Stybel 1977; Stybel, Allen, and Lewis 1976; Szapocznik, Daruna et al. 1977).

Most studies focused on inhalants deal with Mexican Americans in the Southwest. Padilla, Padilla et al. (1977, 1979) found that Mexican American adolescents in an East Los Angeles barrio were at least 14 times more likely to be currently abusing inhalants than were youths in a national sample. Two years later, in a replication and extension of this survey, Perez, Padilla et al. (1979) found a significant decline in inhalant use, but the use of other drugs, including PCP had increased, suggesting a substitution effect.

In Texas, 47% of Mexican American youths in a prevention program had tried inhalants, compared with only 10% of blacks and 17% of Anglos from comparable socioeconomic neighborhoods (Santos-de-Barona and Simpson 1984). In San Antonio housing developments, 23% of youths reported chronic inhalant use (Rodriguez-Andrew 1985), and in a rural Colorado town, Chavez, Beauvais, and Oetting (in press) found higher involvement in inhalants among Latino youth than among Anglos.

On the other hand, although Mata and Andrew (1988*) found that the onset of inhalant use occurred earlier among Mexican American students than among Anglos (6th-12th graders) in one rural south Texas community, the major differences in the overall rate of inhalant use were not ethnic but gender related, with boys being most likely to use than girls. Furthermore, although the overall rate of use was higher than that reported by other school surveys, it was lower than that found by Padilla's community survey and relatively low compared to the use of other drugs (see also Mata 1984).

Mata and Andrew (1988*) suggest that previous evidence of ethnic differences may have been due to the use of institutionally or clinically biased samples. Data do indicate a higher prevalence of inhalant use among treatment clients. For example, among Texas Latinos aged 12-17 admitted into the CODAP treatment system in 1984, 33% were admitted with inhalants as their primary drug, and almost all the inhalant admittees were Mexican Americans. The Chicano methadone maintenance clients studied by Anglin, Ryan et al. (1988*) began inhalant use earlier than the Anglo clients and reported a higher rate for daily use.

In New York, Frank, Marel, and Schmeidler (1988*) found a marked increase in rates of solvent use by Latino students outside than inside New York City between 1978 and 1983, which they attribute at least in part to greater isolation and cultural distance.

The lower rates of inhalant use found in national samples for Latinos in general could be related to geographic and subgroup variations. There is evidence indicating that inhalant use among Cuban American youth is not as great as among Mexican Americans (Page 1980). Among all CODAP treatment admittees in 1984, whereas almost all (88%) inhalant admittees in Texas were Mexican American, in California 59% were (NIDA 1985; Rouse 1987:140).

Inhalants are often the first drug used (with initiation occurring between ages 10 and 15), although Bachrach and Sandler (1985) found that alcohol and marijuana use occurred first.

Marijuana. In the early 1970s, Bloom, Hays, and Winburn (1974) reported that black and Mexican American students were underrepresented as marijuana consumers, whereas Anglo students were overrepresented, apparently because of greater

affluence, increased availability, and greater peer acceptance among the Anglo sample. More recent data for the 12-18 age groups participating in the National Household Survey (NIDA 1988) indicate that this difference has been maintained: 24% of whites, 19% of blacks, and 19.6% of Latinos had ever used marijuana. Data derived from the HHANES study, however, are at variance with these figures: 31% of the Mexican Americans and 26% of the Puerto Ricans in the 12-17 age group had ever used marijuana. Just 20.5% of all Cubans between 12 and 24 had used marijuana at some time (NIDA 1987*). These figures show again that regional and subgroup-specific studies turn up a higher prevalence of use than do national surveys. Most importantly, they further clarify significant variances across Latino subgroups. While marijuana is clearly the most favored drug among Latinos in terms of prevalence of use (excluding alcohol and tobacco), its use is particularly high among Mexican Americans. Unfortunately, HHANES does not provide comparative data for other racial groups.

This perception is reinforced by findings from local level studies (Barrett, Simpson, and Lehman 1988*; Estraba, Rabow, and Watts 1982; Ladner and Scopetta 1979; Padilla, Padilla et al. 1977, 1979; Page 1980). Among the potential school dropouts studied by Bruno and Doscher (1979), marijuana usage was almost twice that reported by students in most other studies (Rouse 1987:137). In the 1988 Texas secondary student survey, the only drug category in which Latinos surpassed whites in lifetime use prevalence was marijuana (Fredlung, Spence, and Maxwell 1989).

In rural south Texas, nearly a third of all Mexican American students (including one in five 8th graders) reported having used marijuana at least once, a proportion exceeding that of both Anglos and other ethnics. Mexican American males reported the highest use level, but Mexican American females reported the lowest. Within the total sample, there was a clear preference for alcohol and marijuana; use of the latter was two to three times higher than the use of LSD, cocaine, sedatives, or tranquilizers (Mata 1985). Two other rural studies in Colorado and Wyoming (Chavez, Beauvais, and Oetting, in press; Cockerham and Alster 1983) found higher use of marijuana among Latino youth than among Anglo youth.

Multiple Substance Abuse. Compared with Asian, black, and nonminority youth, Latino adolescents appear to have higher rates of multiple substance use and to begin such use earlier (Brunswick and Messeri 1984; Gilbert and Alcocer 1988*). In the multiracial survey of young people in residence at the San Diego Job Corps Center, more Latino youth than others used multiple drugs (Morgan, Wingard, and Felice 1984). In their longitudinal survey of California students, Maddahian, Newcomb, and Bentler (1985) consistently found that Latinos and whites, who had similar drug use patterns, had a higher proportion of multiple substance users of alcohol and hard drugs with either cigarettes or cannabis or both than did asians or blacks.

CORRELATES OF USE

Available data suggest that most factors influencing drug use among Latino adolescents are similar to those that influence other youth. For example, Santisteban and Szapocznik's (1982) work with Cuban Americans indicates that the Jessors' theory that alcohol and drug abuse is part of an acting out syndrome that includes a variety of antisocial behaviors is applicable to Cuban youth. The strong influence of peers among all adolescents is equally evident among Latinos, as is the effect of family modeling and the quality of familial relationships. But what is needed is a greater understanding of how these influences operate within the context of Latino culture. In addition to influences common to all teenagers, the drug use patterns of Latino youth appear to be affected by cultural and structural factors peculiar to their minority status.

Environmental Factors

Latino youth are exposed to a high number of environmental risk factors. They are primarily urban-based (almost half live in central cities and only 19% in rural areas), and they suffer disproportionately from poverty, low education, and lack of general health care--factors which are known to increase the risk of substance abuse and exacerbate the effects of abuse-related problems on families and communities.

Although it is often assumed that the use of alcohol and illicit substances by youth is an outgrowth of poverty and adverse living circumstances, the data linking poverty and prevalence of substance use are unclear and ambiguous. For example, alcohol use and drinking levels among adolescents have not been shown to be strongly or consistently related to socioeconomic status (SES) among adolescents in the larger population (Rachel, Maisto et al. 1982). Similarly, studies that have examined the relationship between SES and drinking patterns among Puerto Ricans (Dembo, Farrow et al. 1979) and Mexican Americans (Guinn and Hurley 1976) found that socioeconomic indicators did not correlate with alcohol use. The HHANES survey indicates no consistent relationship between family income and substance use among the different Latino groups. In fact, those living at or above the poverty level were more likely (by as much as two times) to have ever used or to be current users of any of four drugs (cocaine, marijuana, sedatives, and inhalants) than those below the poverty level, with the exception of Mexican Americans who were current marijuana users (NIDA 1987*).

Nevertheless, research among low income samples of Latinos (e.g., Padilla, Padilla et al. 1977) does show rates of substance use that are a great deal higher than those found in the national youth population. Morales (1984) observes that Mexican American youth do not have greater rates of use than other young Americans except in the lowest SES levels. It appears that the relationship between excessive use of alcohol and/or illicit drugs and poverty status is exceedingly complex and is likely dependent on the interaction of multiple factors.

Schinke, Moncher et al. (1988*) emphasize that the many social milieu stressors that exist for urban American Latinos (poverty, unemployment and underemployment, and racial discrimination) correlate with several psychosocial problems, including drug abuse. In a multiethnic study of 552 addicts in New York City, Puerto Rican males had the greatest liabilities of any other group of male addicts. They had the highest levels of unemployment, the least education, the most polydrug use and violent crime, the highest rates of schizophrenia or anxiety disorders, and the greatest number of neurotic and depressive symptoms (Kosten, Rounsaville, and Kleber 1985). Moore (1978) also stresses the influence of the poverty subculture and drug marketing as a integral part of the barrio economy. In general, researchers of poor urban Latino youth all call attention to the role of environmental stress.

The relationship between poverty and substance abuse has not been tested with a well constructed causal model that would throw light on interactions among the multiple factors associated with the milieu and their relative influence on substance use patterns. Such a model needs to be tested in large, inclusive samples of Latino youth which are capable of revealing variance on economic indicators; only then can we say with certainty that social class differences do (or do not) exist with respect to drug use and can we identify specific factors arising out of the poverty milieu that exert major influence on substance use patterns.

Family Background

As with youth in the general population, family intactness per se, measured by the presence or absence of parents in the home, has not been shown to be related to adolescent Latino alcohol and drug use (Dembo, Farrow et al. 1979; Singer 1988; Guinn and Hurley 1976). Several studies have revealed, however, that the quality of parent-child relationships does significantly affect drug use patterns.

In their California sample, Coombs and Landsverk (in press) found that Mexican American adolescents were less likely to use alcohol and other substances when they experienced a positive, trusting relationship with parents, particularly their fathers, and when their mothers contributed to family decision making. Similarly, among Puerto Rican adolescents in Hartford (Singer 1988), those adolescents who depended more on parents than peers for guidance in decision making and emotional support were more likely to be abstainers or low quantity drinkers than adolescents not closely involved with parents. Family discord and disruption have been identified as an early antecedent of abuse among Cubans (Santisteban 1979; Santisteban and Szapocznik 1982). This may be compounded by intergenerational conflict as more highly acculturated youth rebel against traditional family values, as discussed further below (Szapocznik, Rice et al. 1986). Persons who are involved in services to Latino adolescents (Aguirre 1979; Blake 1987; Singer 1987; Galan 1988*) have implicated problems associated with parent/adolescent value conflicts in the generation of youthful substance abuse. Delgado (1988*) also maintains that drug abuse among Latino youth is rooted in a failure to resolve conflicts between parent and peer value systems, which often results in acting-out behavior, with substance use serving as one of many coping mechanisms.

Interpersonal Factors

Peer Influence. Peer use of drugs and alcohol appears to be a particularly strong influence on Latino adolescents' decisions to use alcohol and other drugs (Barnes and Welte 1986; Singer 1988; Padilla, Padilla et al. 1979, 1980; Watt and Wrights 1988*; Dembo, Burgos et al. 1979). There is little evidence, however, that peer influence plays any more important role among Latinos than other youths. Maddahian, Newcomb, and Bentler (1986), examining a multiethnic Los Angeles sample of students, learned that all youngsters were more likely to use substances, including alcohol, when they perceived them to be easily acquired from friends, but these perceptions were most typical of whites and Latinos. Newcomb and Bentler (1986) report interesting cross-cultural variations in the impact of peer and adult use on the use of alcohol and drugs by Los Angeles adolescents. Asians had few substance use models and low use. Blacks had many such models and low self use, suggesting an invulnerability to peer and adult influence. Latinos and Anglos, conversely, were similar in having high perceived exposure to numerous peer and adult models and in reporting high levels of self use, thus appearing to show a vulnerability to influences stemming from their interpersonal environments.

Family Modeling. If Latino youth are particularly susceptible to modeling their behavior after that of adults, as Newcomb and Bentler's (1986) research suggests, familial modeling may establish expectations concerning the benefits and acceptance of alcohol and other drug use, especially among Latino boys. Research findings indicate that the modeling of alcohol use is common in everyday Latino family surroundings (Gilbert 1985, 1989, 1989a). The heavy use of alcohol by Latino adult males and the greater tendency for Latino males to continue heavy use of alcohol into middle age (Caetano 1987; Gilbert and Cervantes 1987) increase the likelihood that substance use by older male family members will be commonly observed by adolescents. Singer (1987, 1988) has provided evidence showing that adolescent Puerto Ricans who drink had their initial drinking experience at home in the family setting. Among Cuban-Americans in South Florida, the strong effect of parents' drug use has been observed (Trimble, Padilla, and Bell 1987:33). Bachrach and Sandler (1985) found that at the time that inhalant use began, youths had been living in an environment of family and peer drug use and that inhalant abusers from these drug-involved families had more problems than those from drug-free families. Estrada, Rabow, and Watts's (1982) study of Los Angeles Mexican Americans in a junior high school showed that sibling and parental drinking was the factor contributing the greatest amount of explained variation in alcohol consumption, particularly among males. Guinn (1977, 1978) found paternal alcohol use to be significantly

related to higher use of drugs among Latino high school students in Texas.

None of these studies was undertaken in a cross-cultural or cross-ethnic context, however, so it is impossible to determine whether parental and sibling modeling is different in content or effect across groups. There is as yet no information that reveals specific cultural practices that encourage or discourage substance use among Latino youth.

Gender

The epidemiological data raise several gender-related issues. In general, male/female differences in drug use are more pronounced among Latinos than among whites (although less evident among Puerto Ricans than Mexican and Cuban Americans,among youth than adults, and for illicit drug use than for alcohol), with adolescent Latino boys much more likely to use alcohol and other drugs than girls. Data from the HHANES study (NIDA 1987*) shows that these substantive gender differences operate across all Latino subgroups and for all types of drug use, including polydrug use, although the gender difference is significantly less pronounced among Puerto Ricans than among other Latinos in that Puerto Rican women have higher drug use rates than do other Latinas. However, there are indications that the Latino gender difference may be narrowing, particularly with respect to alcohol use.

As we have seen, contrary to the traditional Latino proscriptions against female drinking and the pronounced gender differences among adults, Mexican American adolescent girls are almost as likely or, in some localities, more likely to be drinkers than boys (Gilbert 1985, 1987). This suggests that rather dramatic alterations in perceptions of appropriate female role behavior are occurring. Interesting in this regard is the frequent finding that acculturation, measured by language use or acculturation scales, is positively related to girls' but to not boys' use of alcohol (Gilbert 1987; Holck, Warren et al. 1984; Watts and Wright 1988*). This would seem to be the logical result of females adapting to the U.S. culture, which is more permissive in terms of female drinking than the Latino cultures (Ames and Mora 1989; Gilbert 1987).

Latino male alcohol use, both adult and adolescent, is apparently not affected by acculturation in the same manner as that of females. This is probably because the cultures from which the U.S. Latino groups derive sanction male drinking. However, although Latino boys appear to be slightly less likely or equally as likely as other boys to be drinkers, young adult and even older adolescent Latino males, particularly Mexican Americans, tend to drink more heavily and have more alcohol-related problems than men in the larger population (Alcocer 1982:367; Burnam, Hough et al. 1987; Caetano 1985; Gilbert and Cervantes 1986; Singer 1988).

The heavier use patterns beginning in late adolescence appear to result from a blending of the drinking patterns of the donor cultures with those common among U.S. men. For example, Mexican men tend to drink at lower frequency but at higher quantities per occasion than U.S. men. After arriving in the United States, they retain their high quantity patterns, but begin drinking more frequently. Succeeding generations of Mexican American men continue this high frequency/high quantity pattern (Caetano 1985; Gilbert and Cervantes 1986). Page (1980) also speculates that the origin of problem drinking among male Cuban-Americans may lie in a recombination of traditional cultural elements that had existed in prerevolutionary Cuban life with elements of American life, rather than a wholesale adoption of host values. In a perceptive review on alcoholism among Latino youth, Galan (1988*) observes that the many influences on drinking behavior appear to stem from the intersection of donor and receiving cultures and should be examined in that light. Stressing that epidemiological data, such as that reviewed in this paper, must be understood within a cultural context, Galan calls for more information that allows an assessment of: (1) Latino adolescents' levels of cultural integration of biculturality and the kinds of social situations in which they are involved; and (2) the value conflicts inherent in them. As discussed below, a similar process of cultural blending may also influence illicit drug use patterns.

This pattern may also be related to the early adoption by adolescent Latino males of adult roles. Gilbert (1985), reporting on a study conducted among Spanish-speaking persons in three California locales, notes that approval of alcohol use among males is frequently based on situational criteria associated with adulthood, such as having full-time job responsibilities or parenthood, rather than with chronological age. Reference has often been made to the "right to drink" as one of the rights encompassed in the total set of rights and obligations belonging to the Latino adult male role (Davila 1987; Blake 1987; Singer 1987). If many Latino boys are dropping out of school and entering the labor force in their late teens, the operation of such norms could increase drinking rates. The pervasiveness of such norms across Latino groups has yet to be examined.

Cultural Values

Similarly, the use of dangerous drugs by Latino males may be linked to their need to escape emotional pain or to their need to present a "macho" image (Watts and Wright 1988*). It has been speculated that the high prevalence of hard drug use in the barrio may be due to three cultural traits: *machismo* (male role attributes), *personalismo* (an emphasis on interpersonal relationships rather than achieved accomplishments), and *carnalismo* (value placed on ethnic unity) (Casavantes 1976; Moore 1978:77; Watts and Wright 1988*). The machismo sex role values of Latinos has especially been offered as a partial explanation for the reinforcement of heavy drinking practices as males move from adolescence into manhood (Alcocer 1982). However, these cultural explanations cannot be separated from the poverty subculture and specific history of drugs; and, again, before we can judge the cultural specificity of such traits or their actual relationship to substance use, they need to be examined cross-culturally with well-defined measures.

Acculturation

The groups which comprise the U.S. Latino population are relatively recent immigrants to the United States; that is, most are either foreign born or first or second generation. Because of this circumstance, it is important to examine the relationship between acculturation and substance use patterns. Although the data indicate that variances in the level of acculturation account for many of the differences between Latinos and other groups and among Latino subgroups, measures of acculturation have been based on widely different criteria, and the role of acculturation and the mechanisms associated with it have not been fully examined, especially in regard to illicit drug use (Perez, Padilla et al. 1980; Humm-Delgado and Delgado 1983).

One strong indicator of the effects of acculturation is the contrasting substance use patterns of immigrant and later generation Latinos. In their multiethnic survey of California students, Skager, Firth, and Maddahian (1989) found that foreign-born students, compared with native U.S. Latinos, had the highest rates of abstention and lowest rate of high-risk users. Data derived from the HHANES study show that Mexican Americans and Puerto Ricans born in the U.S. were significantly more likely to use drugs than were members of these groups born in Mexico or on the island of Puerto Rico. There were few observable differences between Cuban-born and U.S.-born Cuban Americans since this sample was much smaller and much older that the other Latino groups surveyed (NIDA 1987*).

As Gilbert and Cervantes (1987) have pointed out, in considering the relationship between acculturation and substance use, it is important to distinguish between the process of acculturation and the stresses that are hypothesized to accompany this process. The former is a long-term process whereby certain values and behaviors learned through socialization in one culture are supplanted or integrated with values and behaviors of a second culture. The latter is the psychological distress potentially engendered by the acculturation process. The two concepts relate to substance use in distinctly different ways, although both may potentially influence changes in prevalence and level of substance use.

The process of acculturation in regards to drug use involves alterations in cognition (values, norms) and behaviors related to the use of psychoactive substances. The results of this process is more easily observable with respect to alcohol use than drug use, since among foreign-born Latinos there are already well-defined norms with respect to alcohol use, but in neither culture is the use of drugs normatively defined. As observed above, the alcohol data would indicate that higher levels of consumption among girls are related to acceptance of American drinking norms and behavior in place of the very restrictive Mexican norms, but among boys acculturation results in a blending of Latino (particularly Mexican American) and Anglo cultural values.

Regarding the use of drugs other than alcohol, Watts and Wright (1988*) speculate that one reason for the higher levels of illicit drug use they found among Mexican American students in Texas compared with a national Latino sample was the greater acculturation in the former group, who were primarily second- and third-generation Texans and who might be supposed to have been exposed to the use of drugs through their greater contact with the larger society.

The relationship between the stress that accompanies acculturation and substance use is less straightforward. Here the underlying assumption is that alcohol and drugs are used as a means of coping with the psychological distress experienced by individuals who are adapting to a new society. Jose Szapocznik has developed a theory of "differential acculturation" which hypothesizes that a faster rate of acculturation occurs among immigrant children than among their parents, which causes acculturation stress and lesions in the fabric of family relations, leading to behavioral problems such as drug abuse (Santisteban and Szapocznik 1982). Among Cuban American youth, Szapocznik and his colleagues have found that the most highly acculturated appear to have the highest levels of problem behavior, especially drug abuse. A lower incidence of aggression, conduct disorders, and psychiatric disturbances has been found among bicultural Cuban American youth (i.e., aligned equally with Latino and non-Latino cultures) than among youth exclusively bound to either Latino or non-Latino values.

Group Variation

The information just reviewed underscores the considerable variation across localities and groups in terms of the prevalence, patterns, and levels of drinking and drug use among Latino adolescents. Far more research is needed on the reasons for this. Much of this variation is due to the geographic concentrations of Latino subgroups that differ from each other demographically and in other important ways. For example, the lower drug use patterns found among Cubans in Florida can in large measure be attributed to the very high median age for this group. A majority of Cubans have aged out of the years of high vulnerability to drug use, and their low birth rate will not create a large young cohort of Cuban substance abusers.

Variability in substance use patterns may also be attributable to cultural differences within the Latino adolescent population. However, without further research which examines large community (not school-based) samples of Latino youth from different regions of the country, using comparable measures, we cannot be sure that systematic cultural differences across Latino subgroups actually exist. It seems unlikely that all the variation seen across the regional and community studies can be attributed to cultural differences. At least one researcher who has conducted multiple studies of a single cultural group, Mexican Americans, has noted significant variation across Colorado towns in terms of patterns of Latino adolescent alcohol and drug use (Gene Oetting, personal communication, June 1988).

PREVENTION

The relative youth of Latinos, the many risk factors they face, and the projected rise of their population make prevention especially important (Trimble, Padilla, and Bell 1987:30). However, prevention/treatment programs and policies targeted specifically at Latino youth have been rare (Ames and Mora 1989; Bernstein and Wallerstein 1988*; Humm-Delgado and Delgado 1983; Santisteban and Szapocznik 1982). As a result, there is insufficient information on the effectiveness of prevention and intervention programs tailored specifically to Latino cultural and environmental needs (Gilbert and Alcocer 1988*; Schinke, Moncher et al. 1988*:814; Zambrana and Aguirre-Molina 1987*).

For alcohol, Gilbert and Alcocer (1988*) failed to identify a single empirical article describing treatment strategies, clinical trials, or outcome evaluations related to alcohol intervention activities directed to youthful Latinos. A single article provides an evaluation of one prevention effort targeted to Latino youth: in 1987, Zambrana and Aguirre-Molina (1987*) evaluated the Identity Development and Education for Adolescents (IDEA) prevention program for Latino youth (12-17 years of age) in East Harlem. In-depth interviews with 80 participants (about one-third of all participants) and interviews with staff indicated positive changes in alcohol knowledge, attitudes, and behavior among consistent participants. Bernstein and Wallerstein (1988*) describe the Alcohol and Substance Abuse Prevention (ASAP) program in New Mexico, but provide no indication of its effectiveness on behavior, although after eight months program participants perceived the riskiness of drinking, drugs, and driving to be greater than did the control group.

Lack of published information about prevention programs directed to Latino youngsters does not mean that they do not exist. For example, the California Hispanic Commission on Alcohol and Drug Abuse has for several years operated a Los Angeles based prevention/education program, Hermanos (brothers), for adolescent boys in Los Angeles. The Fenix Family Alcoholism Services in Watsonville, California, conducts the Pajaritos (little birds) Project, a program for 40 youngsters aged 13-17 and their siblings. Like the Hermanos program, this program is based on reinforcing strong family values and strengthening family bonds. One of the most innovative and comprehensive prevention projects is the Los Ninos (the children) program in San Antonio, Texas. Unlike the two projects mentioned above, this program has a pre-adolescent focus, working with children aged 4-11 and with the key people in the children's lives. Unfortunately, with the exception of the Los Ninos project (Rodriquez-Andrew 1984), no information has been published describing the programs and no evaluations have been forthcoming. What is currently needed are evaluation studies of prevention programs directed to Latino youth and the publication of project descriptions and curricula.

The development of prevention and intervention strategies for Latinos has further been hampered by the absence of conceptual models concerning Latino drug abuse (Santisteban and Szapocznik 1982) and the practice of researching only aggregate Latino groups in large scale surveys, which limits the abilities of local practitioners to create and operate relevant and culturally appropriate programs.

The contradictions and uncertainties in the epidemiological data make developing effective prevention programs difficult, but the literature provides some important guidelines for future research and programmatic action. First, as with Native Americans, the high dropout rate among adolescents and the high levels of drug abuse among adults indicate that any prevention effort must encompass not only the individual but the family, the community, and the macro-environment as well as the schools. Efforts to change the environment of poverty and deprivation within which many Latino youths are raised are essential. Morales (1984) considers such intervention a critical necessity.

The research indicates the need for tailoring prevention programs to the unique circumstances of use of the varied Latino populations. Successful prevention programs developed for the mainstream population will not necessarily be effective with Latinos because of differences in environment, language, culture, and patterns of use. Recent experience in the development of bilingual prevention materials by the National Coalition of Latino Health and Human Service Organization has indicated that different versions of prevention materials have to be created to address the cultural nuances of different Latino subgroups. Galan (1988*) suggests that we may need to develop prevention approaches that work on two levels, addressing those elements generalizable to all Latino subgroups and those specific to a particular Latino subgroup.

Different prevention approaches may be required for Latinos than for other groups. Examining the relationships between intention to use and later use, Maddahian, Newcomb and Bentler (1988) found weaker associations between measures of intention to use and use for Latinos, compared with stronger relationships for other groups. This suggests that reducing intentions to use drugs will reduce future drug use to some extent for all ethnic groups, but for Latinos other strategies may be more effective.

The variant drug use patterns in different ethnic groups would indicate that Latino prevention programs may need a different drug-specific focus than that for the general population or other minority groups. The research of Maddahian, Newcomb, and Bentler (1986) suggests that drug education and prevention for black students should focus on cigarette smoking, but those for whites and Latinos need to include all substances. Similarly, Blount and Dembo (1984) stress the need for a drug-specific approach since they observed different reactions to different drugs between Latino and black communities of New York City. But there are potential dangers in over-reliance on a drug-specific approach. The high level of inhalant use in the barrio found by Padilla, Padilla et al. (1977) led to the establishment of a peer-involved community prevention program, but the effects of this program are not clear. Although inhalant use declined two years later, there was a marked increase in alcohol, marijuana, and PCP use. It is possible that while the focused action against inhalants

did reduce their consumption, it also contributed to an increase in the use of other drugs as a substitution effect (Trimble, Padilla, and Bell 1987:26).

Approaches may have to be gender-specific. The major shift in alcohol consumption patterns between early adolescence and young adulthood among males indicates that strategies need to be devised that counter influences on drinking patterns among this particular age-sex group. However, developmental life cycle changes such as these are particularly difficult to research because they are pertinent to precisely that segment of Latino youth that is lost to high school-based samples (Gilbert 1989). More detailed information on the specific lifestyle contexts and factors that are mediating the rise in alcohol and other drug use among Latino girls is needed so that service providers can plan well-focused prevention and education programs directed to adolescent Latinas.

Any program must deal with the need to counter the influence of peer pressure, especially as some evidence indicates that it may play an even stronger etiological role among Latinos than whites. Regarding Latino inhalant users, Bachrach and Sandler (1985:1187) wrote: "The most promising, although difficult, direction for primary prevention with these clients would appear to be actively involving them with a peer system which is less favorably disposed toward the use of drugs." As discussed further below, involvement of the family in this process may be very important. The importance of positive role modeling is stressed by many. Zambrana and Aguirre-Molina (1987*) attribute some of the success of the alcohol prevention program they evaluated to outreach to parents, as well as role modeling by staff. Considering the prominent role of the father in Latino culture, Guinn (1977, 1978) recommends that male instructors should be used in prevention programs as role models.

Equally important is helping Latino youth deal with the many stresses they face (Trimble, Padilla, and Bell 1987). Schinke, Moncher et al. (1988*:814) recommend that substance abuse prevention programs focus on equipping Latino adolescents with coping skills to counter everyday stressors; that such programs include attention to bicultural values; that they integrate social-learning skills content and procedures; and that they encourage support networks, especially involving the immediate and extended family and kinship network members, because Latino Americans share a very strong family and community orientation.

There is general agreement that programs tailored specifically for Latinos that encourage bicultural competence and family integrity must be promoted. As discussed, youths with bicultural competence appear to have lower rates of use and less problem behavior. Schinke, Moncher et al. (1988*:816) stress that through ethnic pride content, preventive intervention can show adolescents how to lower risk for alcohol and other drug abuse by using such cultural values as *dignidad* (individual self-worth), *respeto* (a value of rituals and ceremonies to guide interpersonal interactions), and *caridad* (a priority for assisting, supporting, and tangibly aiding other Latino people). Intervention can encourage youths to apply their cultural heritage and skills to prevent substance abuse. They also recommend that substance abuse prevention with Latino adolescents must occur through *personalismo* (warm, face-to-face interpersonal style) and *confianza* (developing close, trusting relationships).

Discussing the need for more information on the influence of biculturality on adolescent drinking behavior, Galan (1988*) observes that Latino youth may need guidance in "how to act responsibly in drinking situations where their biculturality may give rise to dual values," noting that the inability to sort out competing values may confuse young people's searching for an appropriate way to act. Zambrana and Aguirre-Molina (1987*) emphasize the value of biculturally competent role models as program staff.

Trimble, Padilla, and Bell (1987:34) observe that the disruptive impact of acculturation on families must be borne in mind "to ensure bicultural adjustment that preserves the integrity of the family structure while facilitating nonstressful and productive adaptation to the family's social environment." The importance of family involvement in prevention and treatment has been stressed by many researchers (Maddahian, Newcomb, and Bentler 1986; Padilla, Padilla et al. 1979, 1980; Santisteban and Szapocznik 1982; Schinke, Moncher et al. 1988*). However, most programs have neglected the importance of Latino natural supports systems such as the extended family and religious organizations (Delgado and Humm-Delgado 1983; Humm-Delgado and Delgado 1982; Mannino and Shore 1976). That abuse of many drugs seems to involve to some extent a constellation of related problems, many of which revolve around the family, including a decline in its influence, suggests the value of family therapy in a culture that has relied heavily on the extended family (Santos de Barona and Simpson 1984). Zambrana and Aguirre-Molina (1987*) attribute some of the success of the IDEA program to outreach to parents.

Barrett, Simpson, and Lehman (1988*) found that reduction of problem behaviors, including alcohol and other drug use, among Mexican-American treatment clients was related negatively to peer drug use during the program and was related positively to (1) the amount of family support available during the program, (2) participation in program activities, and (3) a background of religious involvement. They recommend that programs should give particular attention to developing positive peer relations and family support while encouraging disassociation from deviant friends.

Based on their observation that the two major concomitants of drug abusing behavior among Latinos are acculturation stress and family conflicts, Santisteban and Szapocznik developed a Bicultural Skills Training for Families (BSTF) program which addresses these two factors by including family crisis intervention, bicultural effectiveness training, drug abuse information, and family development training (Santisteban and Szapocznik 1982; Szapocznik, Perez-Vidal et al. 1983).

Given the evidence of the role of parent/adolescent value conflicts in the generation of substance abuse among Latino youths, we need to involve parents in prevention and intervention efforts, and we need to have better data on parental attitudes and coping behaviors and their effects on the substance use

behavior of their offspring. The evidence of the role of parental, especially paternal, use as a behavior model indicates that children of alcohol- or drug-abusing parents might be seen as a high-risk group for primary prevention programs, which probably should be developed for children between the ages of 9 to 15, before they become initiated into drug use (Bachrach and Sandler 1985). In this regard, family involvement can help reduce parental drug use as well.

An obstacle that treatment and therapy programs may need to overcome is resistance from the adolescent client and the family. Mata (1985) observed that both marijuana users and nonusers among Latinos had difficulty in seeking help for their problems and in talking to others about them. Cuban American families in South Florida have exhibited an extreme reluctance to enter treatment and therapy, in part because of denial, shame, and fear of loss of status (Page 1980). Similar observations have been made about Latinos by Guinn (1975) and Rouse (1987:148). In light of the importance of the Latino family, Trimble, Padilla, and Bell (1987:33) conclude that "methodologies must be developed that more effectively aid a concerned family member to persuade his/her family...to enter the therapy process."

As a solution to this problem, it has been suggested that a Family Effectiveness Training (FET) model of prevention could be modified and made available to parent groups in such a way that the family would not need to identify one of its members as already dysfunctional (Szapocznik, Perez-Vidal et al. 1983; Szapocznik, Santisteban et al. 1984; Trimble, Padilla, and Bell 1987:34). Since it is often difficult to persuade Latino adolescents to enter therapy, this model might make it possible to reduce the high risk of abuse by engaging them through the parents in a learning and supportive group situation. Szapocznik and his colleagues have also developed a strategic structural-systems engagement procedure to overcome family resistance to therapy, which has shown positive results (Szapocznik, Perez-Vidal et al. 1988*).

CONCLUSION

Even though national and some local survey data indicate less drug use among Latino youth than among white youth, this does not indicate that Latino youth are a low-risk population. Most epidemiological survey data are school-based and do not reflect the large population that has dropped out and is most at risk of abuse, particularly of hard drug use. The few community-based studies we have and the research on treatment clients clearly portray a population at high risk of substance abuse, although the particular substances used and the degree of use may vary among different Latino populations and geographically. Even within student populations, the data generally show higher risk for Latinos than for blacks, Asians, and other minority groups, with the exception of Native Americans. Of particular concern are the heavy and increasing levels of use that occur among male drinkers beginning in late adolescence and the high levels of some of the most dangerous forms of drug use. The problems of prevention and treatment within the Latino community are among the most challenging in the field, involving family dynamics, language and other cultural barriers, and multiple adverse environmental conditions. The high school dropout rate would indicate that community-based prevention programs may be more important than school-based programs for this particular population.

ABSTRACTS

ANGLIN, M. DOUGLAS; RYAN, T.M., ET AL. 1988. Ethnic differences in narcotics addiction. I. Characteristics of Chicano and Anglo methadone maintenance clients. *International Journal of the Addictions* 23(2):125-149. 60 Refs.

Although there is general consensus that ethnic differences do exist among narcotic users, there is disagreement on just what these differences are and their significance. This paper reviews the research literature comparing Chicano (Mexican American) to Anglo heroin addicts. Characteristics of 546 Chicano and Anglo men and women who had been clients of southern California methadone maintenance programs in 1978 were compared based on data collected in four retrospective, longitudinal interviews. Background factors examined include nativity, family socioeconomic status (SES) and interpersonal relationships, education, and gang membership. Lifetime characteristics and status at the follow up interview are reported, with particular attention to legal status, criminality, employment, and interpersonal relationships. Drug experimentation history (excluding alcohol) and circumstances surrounding narcotics initiation are also compared. Most observed differences prior to addiction were similar to ethnic differences found in the general population.

The literature indicates that Chicanos (especially men) tend to begin marijuana use earlier and to use fewer different types of drugs than Anglos. Most studies suggest that more Chicanos become addicted at younger ages than Anglos Although Chicanos appear to begin drug use earlier, they use fewer types of drugs than Anglos. Chicano heroin addicts have generally been found to be arrested at younger ages and more often than Anglos.

Findings. Major differences occurred in age at initial use of 12 drugs. Chicanos reported a younger mean age at first use of inhalants (14 vs 15), marijuana/hashish (14 vs 15), and heroin (18 vs 19). Anglos are significantly younger than Chicanos when they first use hallucinogens, amphetamines (both oral and injected), opiates other than heroin or street methadone, cocaine, tranquilizers, and phencyclidine (PCP). Chicanas were older or the same age as Anglo women when they first use any drugs. Anglo women were significantly younger than Chicanas when they tried marijuana/hashish or hallucinogens, inject amphetamines, or used heroin, street methadone, cocaine, or PCP.

With a few exceptions, Chicanos were generally older than Anglos at initial use of most nonmedical drugs. This finding also applies, though less significantly so, to data on daily use of these substances for 30 days or longer. For inhalants, Chicanos were significantly younger. The mean age of first daily use was 13, vs 15 for Anglos. Chicanos also reported a higher percentage rate for daily use (15 vs 11). For barbiturates, heroin, and other opiates, the mean ages were the same. However, Anglo men are generally younger when sustained substance abuse began. In general, Anglo women were most likely to have engaged in heavy use of more nonmedical drugs than Chicanas; the differences are significant for abuse of marijuana/hashish and cocaine. The mean age for sustained daily use was generally younger for Anglo women than Chicanas.

Regardless of sex, Mexican-Americans disproportionately come from working-class and poor homes, and Anglos from middle- and upper-class homes. Prior to age 16, in contrast to all three other groups, 61% of Chicanas were reared in single-parent homes. They also had greater gang involvement and poorer relations with parents.

The data on addicts' drug histories generally confirm prior research: Anglo men experiment with more drugs and at an earlier age than Chicanos, inhalants, marijuana, and heroin excepted. On the average, Chicanas begin drug experimentation later than Anglo women, and experiment less with hallucinogens, PCP, opiates other than heroin, and cocaine. Once they begin to use heroin, they forego the daily use of virtually any other nonmedical drug (with the possible exception of barbiturates).

BARRETT, MARK E.; SIMPSON, D.D.; AND LEHMAN, W.E.K. 1988. Behavioral changes of adolescents in drug abuse intervention programs. *Journal of Clinical Psychology*, 44(3):461-473. 26 Refs.

Reduction of problem behaviors (drug and alcohol use, school problems, and legal involvement) by Mexican-American youth (N=326) during their first three months in four drug abuse intervention programs in Texas was examined. The data were collected as part of the Prevention/Intervention Management and Evaluation System or PMES established in Texas in 1980. The four programs had comparable clientele and service delivery systems. Each was located in low socioeconomic, Mexican-American neighborhoods. Clients had all been in treatment for 10 to 12 weeks.

The clients were predominantly male (72%), between 13 and 16 years of age, with slightly over half living with both parents and a third living with their mothers only. Many were referred to the program from the criminal justice system; considerably less often by family, schools, friends, and self, in descending order of frequency. Forty percent had used inhalants, 68% marijuana, 20% stimulants, 17% depressants, 18% hallucinogens, and 15% cocaine. Few had used PCP or opiates.

Reduction of problem behaviors was related negatively to peer drug use during the program and was related positively to (1) the amount of family support available during the program, (2) participation in program activities, and (3) a background of religious involvement.

These findings support previous research that has shown the importance of peer influences and commitment to conventional structures of family and religion in relation to adolescent problem behaviors.

Based on the results of this study, two goals that adolescent drug abuse programs should stress are working heavily on developing positive peer relations and family support while encouraging disassociation from deviant friends.

BERNSTEIN, EDWARD, AND WALLERSTEIN, N. 1988. A.S.A.P.: An alcohol and substance abuse prevention program developed for adolescents in New Mexico. *Border Health* 4(4):17-22.

Ethnic and racial minority over-representation in poverty data and trauma statistics has its roots in historic conflict with the dominant society and years of internalized oppression, as well as the present conditions of life. These conditions have not only adversely affected their health status, but their self-esteem, sense of powerlessness, and associated feelings of rage, isolation, and depression. The Alcohol and Substance Abuse Prevention, ASAP, program offers a unique model and educational method. Small groups of mid and high school volunteers from high-risk communities visit the University of New Mexico Trauma Center and the Bernalillo County Detention Center to hear the life stories of individuals hospitalized or incarcerated for problems related to alcohol and substance abuse. ASAP shows respect for the experience and opinions of youth and is dedicated to build concretely on youths' positive values and foster a spirit of community cooperation and pride in cultural values. During discussion sessions, youth identify problems from their interviews, share their own experiences, analyze the immediate and distal causes, and identify individual and group actions. In a cyclical/spiral process of action-reflection-action, youth learn critical thinking, learn to explore and communicate feelings,and test out their own abilities to make changes in their world in concert with others. The program evaluation, results, and implications for border health are presented.

DELGADO, MELVIN. 1988. Alcoholism treatment and Hispanic youth. *Journal of Drug Issues* 18(1):59-68. 35 Refs.

Treatment of alcoholism in Hispanic youth is described in four sections: (1) an overview of the literature on Hispanic adolescent alcohol abuse; (2) factors clouding an understanding of Hispanic adolescent alcohol abuse; (3) an examination of what role acculturation plays in alcohol/substance abuse; and (4) a review of intervention themes. Hispanic adolescents have received increased attention in the literature due to their increasing numbers and the unique challenges they bring to intervention. The literature indicates that few studies specifically focus on alcohol abuse and research has been based primarily in New York. For the Hispanic adolescents, failure to resolve the conflicts between the parents' value systems and those of their peers may result in acting-out behavior of which substance abuse may be just one manifestation. The adolescent must struggle with meeting the demands of two worlds that at times seem at opposite ends of a continuum and the turning to alcohol may represent an attempt at coping with these conflicts. Alcohol treatment services for Hispanics, as well as other racial-ethnic groups, must be viewed within a broad constellation involving education, employment, and prevention. The importance of having a continuum of care and services, including assessment, residential, outpatient, and extended care services, begins with a culture-specific intake process and continues with a culture-specific intervention, is stressed.

FRANK, BLANCHE; MAREL, R.; AND SCHMEIDLER, J. 1988. The continuing problem of youth solvent abuse in New York State. In: Cider, Raquel, and Rouse, B., eds. *Epidemiology of Inhalant Abuse: An Update.* NIDA Monograph Series 85. DHHS Pub (ADM)88-1577. Washington, D.C.: GPO. pp. 77-105. 7 Refs.

Surveys of New York State secondary school students' use of inhalants were conducted in 1978 and in 1983. Approximately 35,000 questionnaires were used in 1978, and 27,000 in 1983. Students who participated in the 1983 survey were required to obtain formal parental or guardian approval before doing so, which may have resulted in an underreporting of substance use rates.

Findings: In 1978, New York City Hispanic students had intermediate rates of solvent use. In the rest of the state, Hispanic females had rates among the highest, while Hispanic males had the lowest rates. White students throughout the state had among the highest rates of solvent use. Usage among Hispanic females outside New York City was comparable to that of white students outside the city. Usage among Hispanic males in the same areas was much lower than that of non-Hispanics.

By 1983, however, both sexes of Hispanic students outside the city had the highest rates of use in the state. Use by males went from 1.6 to 22.6 %, and use by females went from 9.3 to 25.5 %. New York City use by both whites and Hispanics of both sexes approximately doubled in the same time period.

Conclusions: The marked increase in rates of solvent use by Hispanic students outside New York City is in sharp contrast to the consistently intermediate levels of use among Hispanics living in the city. This may be explained by the higher concentrations of Hispanics living in New York City. Being ethnically isolated may contribute to feelings of isolation and cultural distance in areas of the state outside the city. It is difficult, though, to determine why such a large increase in use by non-city Hispanics occurred between 1978 and 1983.

GALAN, FERNANDO J. 1988. Alcoholism prevention and Hispanic youth. *Journal of Drug Issues* 18(1):49-58. 8 Refs.

Descriptive literature on primary prevention approaches and techniques for Hispanic youth is virtually non-existent, which inhibits awareness of the factors critical to understanding intervention. An awareness of the nature of Hispanic youth, the significance of a bicultural perspective, and an understanding of themes of conflict that Hispanic youth

face are important to any prevention effort. After reviewing the concept of prevention, the view of primary prevention as empowerment is discussed, and descriptions of the various components of an empowerment approach are described. Four dimensions are described and various developmental skills are listed that pertain to each.

It is argued that examination of the subgroups that constitute Hispanic youth may lead to a prevention approach characterized by two major threads: (1) Inter-Hispanic--those elements generalizable to all Hispanic subgroups; and (2) Specific Hispanic--those elements that are tailored to the specific needs of a particular Hispanic subgroup.

Hispanic youth need helpful guides on how to act responsibly in drinking situations because their biculturality may sometimes give rise to dual values.

Program designers and planners must take into consideration the following themes of conflict that face Hispanic youth face: ethnic identity, biculturality, the use of Spanish language, sex-role identification, skin color, family history of alcoholism, and the overall sense of self in relation to family. Prevention efforts for Hispanic youth require more time and more scope because there are simply more than the usual number of conflicts associated with the difficult period of adolescence and ethnic identity.

An empowerment approach to primary prevention reaches along four dimensions: (1) problem solving that develops self-awareness and decision making; (2) personal planning that develops self- determination and goal setting; (3) personal leadership that develops courage and self-discipline; and (4) personal integration that develops self-acceptance and self-trust.

Prevention efforts that help Hispanic youth address the social pressures of adolescence as well as the cultural pressures of acculturation are those that may provide a beneficial service.

GILBERT, M. JEAN, AND ALCOCER, A.M. 1988. Alcohol use and Hispanic youth: An overview. *Journal of Drug Issues* 18(1):33-48. 60 Refs.

A review of recent, pertinent literature was conducted on the extent and nature of alcohol-related behavior among Hispanic adolescents. Problems related to the available literature included a lack of differentiation of major Hispanic subgroups, small and non-random samples, and an overemphasis on illicit drugs which tended to divert attention from drinking behavior. Onset and prevalence data indicated patterns of use somewhat similar to the general population. Most interesting, however, was the pattern of poly-substance abuse which develops early in adolescence and persists into the late adolescent years among both Hispanics and other youths. Further, problems related to alcohol use are evident among Hispanic youths. The literature indicated some relationship between alcohol use and family and peer factors. The literature search failed to disclose a single empirical article that described treatment strategies, clinical trials, or outcome evaluations related to alcohol intervention activities directed to youthful Hispanics. It is recommended that: (1) funding of research and projects be designed to establish more precise epidemiological data on various subpopulations of Hispanic youth, and (2) community-based primary prevention programs be developed, based on those epidemiological data.

MATA, ALBERTO G., JR., AND ANDREW. 1988. Inhalant abuse in a small rural south Texas community: A social epidemiological overview. In: Crider, Raquel, and Rouse, B., eds. *Epidemiology of Inhalant Abuse: An Update.* NIDA Research Monograph 85. DHHS Pub (ADM)88-1577. Washington, D.C.: GPO. pp. 49-76. 55 Refs.

Although it has been asserted that Mexican-Americans are overrepresented among inhalant users/abusers, the extent, incidence, and prevalence have not been clearly established. Studies of inhalant abuse have been few; and mostly limited to urban, but not barrio, communities. To better ascertain patterns of inhalant abuse among rural youths, 614 6th-to-12th-grade students in Frio County, Texas, participated in a voluntary anonymous survey in early spring 1983. The participants represented about a third of the student population asked to participate. Each student and his parent(s) had to sign an informed consent letter. The survey questions concerned nine different drugs, licit and illicit, but focussed on inhalants. Students were asked about their lifetime usage, age at onset of use, patterns of use, peer group usage and approval of substance use, and availability of illicit substances. The findings were analyzed to determine ethnic differences between Anglo and Mexican-American users as well as gender differences. Also, inhalant users were compared to noninhalant users in terms of use of other illicit substances.

Findings. Slightly over 11 % of all students reported ever having used inhalants. Compared to lifetime use of tobacco and alcohol and current patterns of use of other illicit drugs, use was a little higher for inhalants than it was for LSD, tranquilizers, and sedatives, but slightly lower than for amphetamines and substantially lower than for marijuana or alcohol and/or tobacco.

Although Mexican Americans were slightly more likely to have used them than Anglos, the most significant differences were between males (14 %) and females (8 %). Onset of use was found to be most likely to occur in mid-to-early adolescence. Use generally declined significantly by late adolescence. Only 5 % of all students reported having used inhalants within the last 30 days.

Use Patterns. Inhalant users were significantly more likely to have ever used tobacco, marijuana, and amphetamines than were non-users. They were slightly more likely to use all other substances except alcohol, cocaine, and LSD. Mexican-American inhalant users were more likely to have ever used amphetamines than were Anglo inhalant users.

Initiation. Onset of use was likely to have occurred earlier among males than females, earlier among Mexican-American males than Anglo males, and slightly earlier among Anglo females than Mexican-American females.

Availability. Inhalant users reported inhalants to be the most easily obtainable substance, while non-users indicated them to be the third-most easily obtainable. Anglos of both sexes found inhalants easier to obtain than did Mexican-Americans.

Peer Use. Inhalant users were more likely than nonusers to report that their friends used all other substances except alcohol, cocaine, and amphetamines. Mexican-American users were more likely to report that their friends used amphetamines than were Anglo users. Friends of users were more likely to approve of use of all substances except alcohol and cigarettes than friends of non-users. However, use of inhalants among friends of users was found to be lower than use of alcohol, tobacco, and marijuana.

Conclusions. Inhalant use differences between the sexes were more significant than the only slight differences between Mexican- American and Anglo users. Earlier evidence showing greater ethnic differences may be due to the use of institutionally and clinically biased samples. Perceptions of accessibility and availability of inhalants correlate to increased use. However, despite the relative ease of obtaining inhalants, their use is relatively low. This may be related to the low approval rates of inhalant use among friends of users. More than half of the students reporting ever having used inhalants had not used them for at least two months.

NIDA (NATIONAL INSTITUTE ON DRUG ABUSE). 1987. *Use of Selected Drugs among Hispanics: Mexican-Americans, Puerto Ricans, and Cuban-Americans: Findings from the Hispanic Health and Nutrition Examination Survey (HHANES).* DHHS Pub (ADM)87-1527. Washington, D.C.: GP

In 1982-1984, the Hispanic Health and Nutrition Examination Survey gathered data on drug use (cocaine, marijuana, inhalants, and sedatives) among Mexican American, Puerto Rican, and Cuban-American households. Information was collected from 8,021 persons between ages 12 and 74. For each level of use (past month, past year, not past year, ever use), results were reported for age, sex, language of interview, education, marital status, country of birth, family income, and poverty index. For Cuban-Americans, reliable data were available only for marijuana and cocaine. The results indicated that there were both similarities and differences in the drug use patterns of the three Hispanic groups.

Findings. Overall, the survey found substantially less drug use among Cuban Americans than among Mexican Americans and Puerto Ricans, which was attributed in part to the much older age of the Cuban-American sample, of which half were between the ages of 35 and 44, compared to one-fifth who were in that age group among other Hispanics. Generally, with the exception of sedatives, use for all Hispanic groups was greatest in the 18-24 age group.

The first drugs used were inhalants, followed by marijuana and then cocaine. Among Mexican American and Puerto Ricans, inhalants generally were first used around age 15, with Mexican American females beginning at age 14. Marijuana use began between 15 and 17 for males and 16 to 18 for females. Cocaine was the last drug used; only Puerto Ricans had a median age of first use less than 20 years (17 for males and 19 for females).

Males used drugs more often than females, but gender differences were less pronounced among Puerto Ricans than among Mexican Americans or Cuban Americans.

There was no consistent relationship regarding family income. In general, those living at or near the poverty level were more likely (as much as two times) to have ever used or to be current users of any of the four drugs than those below the poverty level, with the exception of Mexican American current marijuana users.

The following results for each drug are limited to those aged 12- 17, except Cuban Americans in which the age group is 12-24:

Marijuana. Among Mexican-American youth, 30.7% reported having used marijuana at least once (lifetime use); 10.3% had used marijuana in the past 30 days (current use). The median age of initiation for both sexes was 16 years.

For Puerto Ricans, lifetime use was 25.7%; current use, 9.4%. Puerto Rican females began marijuana use at a median age of 15; males at 14.

Cuban Americans reported lifetime use of 20.5% and current use of 7.3%. Initiation of marijuana began among Cuban-American males at a median age of 17 and among females at 18.

Cocaine. Ever use of cocaine was reported by 4.2% of Mexican Americans; 7.0% of Puerto Ricans; and 12.1% of Cuban Americans. Median age at first use for Mexican American adolescents was 20 for both sexes; for Puerto Ricans, 17 for males and 19 for females; and for Cuban Americans, 20 for males and 21 for females.

Inhalants. 4.8% of Mexican Americans youth reported ever use of inhalants; 1.9% of Puerto Ricans. Median age at first use for Mexican Americans was 15 for males and 14 for females; for Puerto Ricans, 15 for males and 16 for females.

Sedatives. Ever use of sedatives was reported by 4.0% of Mexican American adolescents and 3.3% of Puerto Rican adolescents. Age at first use was not reported.

SCHINKE, STEVEN P.; MONCHER, M.S.; et al. 1988. Hispanic youth, substance abuse, and stress: Implications for prevention research. *International Journal of the Addictions* 23(8):809-826. 103 Refs.

Hispanic adolescents are the fastest growing ethnic-minority age group in America. They are also at high risk for drug, alcohol, and tobacco use. In this paper, the authors discuss the etiology of Hispanic adolescents' substance abuse, as explained in part by psychological stress. Based on the authors' research and on other data, a model for preventing substance abuse among Hispanic youths is presented. The model draws from coping, acculturation, social learning, and informal network theories. Concluding with a research agenda, the paper calls for descriptive, correlative, and

intervention outcome studies to scientifically understand and prevent substance use among Hispanic adolescents.

Psychological stress is increasingly implicated in substance abuse risk, indicating that strained social relationships and a heightened sense of powerlessness or helplessness may induce adolescents to turn to drugs as an easy means of emotional self-regulation and stress reduction, promising instant effects and a sense of control. Given the high concentration of Hispanic youths in impoverished, urban settings characterized by a lack of social supports, the nature of stress within this population and its role in the etiology of drug abuse warrant further attention.

Prevention efforts must focus on equipping Hispanic adolescent with coping, bicultural, and social learning skills, as well as providing them with support networks. Coping skills are needed to counter the many everyday stressors they face.

Research indicates that Hispanic youths with bicultural competence (the ability to blend the values and roles of native and surrounding culture) have lower stress-related problem behavior risk than monoculturally oriented youth. This indicates that intervention must be tailored to help Hispanics prevent substance abuse. Intervention can encourage youths to apply their cultural heritage and skills to prevent substance abuse. Particularly important in this regard may be such cultural values as *dignidad* (individual self-worth), *respeto* (a value of rituals and ceremonies to guide interpersonal interactios), and *caridad* (a priority for assisting, supporting, and tangibly aiding other Hispanic people). This would also indicate that prevention programs will be more effective with Hispanic adolescents if they involve *personalismo* (warm face-to-face interpersonal style) and *confianza* (developing a close, trusting relationship).

Cognitive problem-solving skills are needed to allow Hispanic youths to systematically define, generate solutions for, and resolve alcohol and other drug use problems.

Encouraging support networks may be especially helpful as Hispanic Americans share a very strong family and community orientation. Hispanic families are an underresearched entity with regard to nurturing and sustaining prevention efforts. By engaging parents, siblings, and kinships networks, intervention can tap potent risk influences. An ideal program would provide Hispanic youths with coping, bicultural, and social-learning-based skills while engaging their immediate and extended family and kinship network members.

SINGER, MERRILL; DAVISON, L.; AND YALIN. F. 1987. *Alcohol Use and Abuse among Hispanic Adolescents: State of Knowledge, State of Need*. Conference Proceedings. Hartford, Conn.: Hispanic Health Council.

On the basis of the papers and discussions at the conference (which focused on Puerto Rican drinking patterns), it was concluded that high quality studies of alcohol use among Hispanics and the major subsets of this population are few. The general conclusion from the literature that does exist is that adult men are heavy users of alcohol until a later stage in life than non-Hispanic men and they experience higher than average rates of alcohol-related problems.

Drinking practices among Puerto Ricans are influenced by various cultural attitudes that view alcohol as: (1) a socially approved "reward" for performance of labor or achievement of a goal: (2) a means to "escape" undesirable circumstances; (3) a "manly" social activity, an expression of *machismo*; (4) a refreshment and facilitator of social interaction; and (5) a way of feeling and acting Puerto Rican. There is little ambiguity about drinking norms within Puerto Rican culture and considerable tolerance for those who engage in heavy drinking so long as they meet their social, particularly familial, obligations. These cultural attitudes are not the sole cause of heavy drinking; they are mediated and shaped by social experience under which Puerto Ricans have found themselves as members of a subordinate minority class. The drinking practices and alcohol-related problems of Puerto Ricans have been exacerbated by the adoption of drinking practices of the dominant American culture.

The problem of inadequate research on alcohol use and problems among Hispanic adolescents is even more pronounced than among Hispanics in general. In addition to the conflicts and stresses typical of all adolescents in the U.S., Hispanic youth must also cope with a generation gap between themselves and their parents, who maintain ties with Puerto Rico and who are generally monolingual. In conflict their parents and isolated from the dominant U.S. culture, Hispanic adolescents seek acceptance and support from the street culture, in which the dominant values are toughness, defiance, thrill-seeking, and regular alcohol and drug use. This social milieu is not universal, however; it applies primarily to males, and it is subject to local variation.

Conference participants emphasized the importance of developing prevention and intervention sensitive to Hispanic and tailored to their particular needs as alcohol abusers. A promising approach to treatment for Hispanics is the use of indigenous treatment modalities, particularly a folk healing practice known as *expiritismo*. A culturally sensitive program of alcohol prevention/treatment should include attention to language, social environments, family issues, degree of assimilation, cultural values, sex and age roles, religion, and community orientation. Such programs also must address the territorial orientation of Hispanic youth, their developmental needs (education, training, employment), the need for positive role models, affective and communal needs, and their polydrug use patterns.

SZAPOCZNICK, JOSE; PEREZ-VIDAL, A., et al. 1988. Engaging adolescent drug abusers and their families in therapy: A strategic structural systems approach. *Journal of Consulting and Clinical Psychology* 56(4):552-557. 22 Refs.

Previous research on adolescent treatment clients indicates that a very large proportion of families who initially seek treatment are not engaged in therapy. This article presents evidence for the effectiveness of a

strategy for engaging Hispanic adolescent drug users and their families in therapy. The intervention method is based on strategic, structural, and systems concepts. To overcome resistance, the identified pattern of interactions that interferes with entry into treatment is restructured.

Subjects were 108 Hispanic families (82% Cuban origin), in Dade County, Florida, who contacted the Spanish Family Guidance Center because an adolescent was suspected of, or was observed, using drugs. Of these, intake interviews were given to 74 for whom there was direct evidence of drug involvement and problem behavior. Subjects were randomly assigned to a strategic structural-systems engagement (SSSE) condition (experiment) or to an engagement-as-usual condition (control). Under the SSSE model, the therapist seeks to engage the family by using two traditional structural family therapy techniques: (1) joining with the family in a way that does not challenge the family structure; and (2) restructuring only those interactions that prevent family members from getting into treatment.

Findings. *Drug Use.* Interviews indicated that 93% of subjects were using drugs at admission, with marijuana by far the drug of choice (82.5%), followed by cocaine (80%). The frequency of primary drug use reported by most subjects (47.2%) was several times per week.

Treatment Resistance. Resistance to treatment from other than the mother (who usually had requested assistance) was high. In 62% of cases, the adolescent drug user or identified patient (IP) was unwilling to come to treatment; in another 10%, both the IP and the father; and in another 6%, the father alone.

Engagement Outcome. The differences between SSSE subjects and controls were dramatic. Subjects in the experimental condition were engaged at a rate of 93% compared with subjects in the control condition, who were engaged at a rate of 42%. Seventy-seven percent of subjects in the experimental condition completed treatment compared with 25% of subjects in the control condition.

Treatment Effectiveness. A significant reduction in the number of subjects using drugs occurred according to self reports. Although only 7% of the subjects completing treatment had been drug free at admission, 80% were at termination. However, there was no significant differences in outcome between the experimental and control groups.

Conclusions. From a theoretical standpoint, the findings highlight the heuristic value of defining resistance as a symptoms of maladaptive patterns of interactions which can be removed by restructuring those patterns.

WATTS, W. DAVID, AND WRIGHT, L.S. 1988. A Comparison of Delinquency, Drug Use and Related Factors among Hispanic and White Adolescents. A report to the Office of Juvenile Justice and Delinquency Prevention. San Marcos, Texas: Southwest Texas State University.

Hispanic and white adolescents at a Texas high school were surveyed as to their drug use in 1986 (Hispanics: males=173, females=227; whites: males=155, females=132). Most of the Hispanic group were Mexican-Americans. There were no significant differences between Hispanics and whites of either sex in overall drug use (excluding alcohol and tobacco), but rates were higher for Hispanic males than for white males. The data suggested that Hispanic males were more likely to use more heroin, marijuana, and LSD. There were few differences in lifetime drug use between Hispanics and whites, except that Hispanic males were more than twice as likely to report heroin use (8.7% vs 4%). Hispanic males were significantly more likely to be current (last month) users of marijuana and LSD, and also to have higher but not significantly different use levels of cocaine, amphetamine, inhalant, heroin, quaaludes, barbiturates, and tranquilizers.

Reported lifetime use among Hispanics for the most commonly used illicit drugs was:

	male	female
marijuana	60%	51%
cocaine	26%	11%
inhalants	23%	22%
heroin	8.7%	.2%

In regard to alcohol, 23% of the Hispanic boys reported taking their first drink at age twelve or younger, while only 6% of Hispanic females began use this early. Among Anglo boys and girls, the percentages were 37% and 20%. Whites of both sexes were more likely to use alcohol than Hispanics, but Hispanic drinkers, both male and female, tended to drink more frequently and reported more occasions on which they consumed five or more drinks than did Anglo adolescents.

In reporting the results of NIDA's High School Seniors Survey in regard to Hispanic and white drug use, Watts and Wright found no ethnic differences with respect to inhalant and LSD use. Whites were more likely to use alcohol, amphetamines, and narcotics other than heroin. Hispanic males were more likely than white males to report use of heroin and cocaine.

Comparison of the Texas sample and the national sample indicated that local Hispanics were significantly more likely than the Hispanics in the national sample to use drugs, possibly because they were more acculturated or because, given the high dropout rate of Hispanics, those high school seniors surveyed nationally included more Hispanics who had not succumbed to drug and alcohol problems. Another factor could have been the location of the Texas high school along a major drug artery. Results for alcohol were similar in both the local and national samples.

Overall the data suggested that Hispanic males form a unique subculture in relation to their white counterparts and Hispanic females. Hispanic males also appear to be more involved in the use of more

dangerous drugs, which may be linked to their need to escape emotional pain and/or to their need to present a "macho" image. There is evidence that Hispanic adolescents, in comparison to whites, were more distrusting and less frank in reporting drug use. This suggests that new instruments need to be developed with Hispanics in mind.

ZAMBRANA, RUTH E., AND AGUIRRE-MOLINA, M. 1987. Alcohol abuse prevention among Latino adolescents: A strategy for intervention. *Journal of Youth and Adolescence* 16(2):97-113. 26 Refs.

In spite of what is known about adolescent alcohol use and the need to prevent alcohol abuse, there is a scarcity of information on alcohol use and alcohol abuse among Latino youth. This paper describes the evaluation of a unique prevention program funded by the National Institute of Alcohol Abuse and Alcoholism in 1978 for poor urban Latino youth (12-17 years of age) in East Harlem, the Identity Development and Education for Adolescents (IDEA) program. The program was developed from the pedagogical concept of confluent education, which sees both affective and cognitive competencies as integral to the learning process. The main objectives were to impact positively on attitudes, knowledge, and behavior; influence development of a positive self-concept, self-esteem, and coping skills; and involve to the larger community them inthe educational process. Existing literature on Latino youth and alcohol use is also reviewed.

The methodological strategy entailed in-depth interviews with 80 consistent program participants (about one-third of the 752 participants) and interviews with staff. Traditional evaluation methods and instruments were not found to be appropriate for use with this population. Interviews were conducted on a nonrandom basis, with participants selected on the basis of their length of participation in the program. Data from the records of all 752 program participants were also examined.

In the literature review, it is noted that epidemiological studies of Latino alcohol problems and alcoholism reveal that Latino adults have a higher rate of alcohol problems than the general population of the U.S.A. Yet very few program models have been initiated or developed within Latino communities for the prevention of alcohol abuse among Latino youth. Serious scientific studies focusing on Latinos were not conducted until the mid-1970s. Yet with even this significant increase of data on Latinos, minimal attention has been given to Latino adolescents. Research conducted with Latino adolescents generally has been modeled on a cultural-deterministic theoretical approach and has emphasized their delinquent and antisocial behavior.

Recent research has consistently shown that, despite the relatively high rate of alcohol use and abuse among Latino adults, young Latino adolescents show a lower percentage of drinkers than the Anglos and a higher percentage of abstainers. It would first appear that Latino adolescent males were making drastic changes in their drinking practices as they reached adulthood. It is more likely, however, that many of the young Latino students who participated in epidemiological surveys were "super kids," high achievers who survived to the upper grades. Nationally, Latino youth drop out of school at twice the rate of their white counterparts. Therefore, data that indicate that Latino youth are using alcohol less than white youth should not mislead the reader to assume that Latino youth are a low-risk population for alcohol abuse. The use patterns reflected in these studies may not be typical of the large youthful population that is out of school.

The results of lthe IDEA program clearly demonstrate changes in alcohol knowledge, attitudes, and behavior among consistent participants. The changes were most attributable to the intervention strategies used, namely workshops and cultural materials, as well as to outreach to parents and role modeling by staff. The most enlightening results were in terms of reasons for participation and attrition.

The results indicate the need for the development of creative educational methods and materials, and the difficulties in the use of traditional educational curriculum and evaluation materials with low-income Latino youth. Due to cultural, class, and skills differences, these youths could not be readily engaged in the traditional educational process with tools and strategies incompatible with their experience. Educational curricula that integrate the affective, cognitive, and psychomotor domains for learning in a culturally relevant fashion proved most effective. Bilingual-bicultural personnel who themselves received alcohol education also proved very effective in delivering curriculum and serving as role models.

Alcohol prevention efforts with poor urban Latino and minority youths must be comprehensive if they are to effectively address the area of prevention as a total environmental concept. The socioeconomic reality of poor urban youth produces a variety of stresses which may produce serious consequences for the development of self-esteem. Future alcohol education must intervene at multiple levels.

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AUTHOR ADDRESSES

The following is a list of the institutional affiliations of the first author of the abstracted documents

Anglin, M.Douglas.
UCLA Drug Abuse Research Group,
1100 Glendon Avenue, Suite 763, Los Angeles,
California 90024

Barrett, Mark E.
Texas A & M University, Behavioral Research Program,
College Station, Texas

Bernstein, Edward
Division of Emergency Medicine
University of New Mexico School of Medicine
Albuquerque, New Mexico

Frank, Blanche
New York Division of Substance Abuse Services
Bureau of Research and Evaluation, 55 West 125th
Street, New York New York 10027

Galan, Fernando J.
Graduate School of Social Work, University of Houston,
Houston, Texas 77004

Gilbert, M. Jean
Chicano Study Center, University of California
405 Hilgard Avenue, Los Angeles, Ca lifornia 90024

Mata, Alberto .G., Jr.
Center for Health Promotion, School of Public Health,
University of Texas Health Sciences Center
Houston, Texas

Schinke, Steven P.
Columbia University School of Social Work, 622 West
113th Street, New York, New York 10025

Singer, Merrill
Hispanic Health Council, University of Conneticut
School of Medicine

Szapocznick, Jose
Spanish Family Guidance Center
1425 Northwest 10th Avenue, Miami, Florida 33136

Watts, W. David
Sociology Department
Southwest Texas State University, San Marcos, Texas,

Zambrana, Ruth E.
School of Social Welfare, Dodd Hall 247E
University of California Los Angeles
405 Hilgard, Los Angeles, CA 90024

Prevention Research Update
Gregory A. Austin, Editor
Michael L. Prendergast, Asst. Editor
Southwest Regional Educational Laboratory

Western Center for Drug-Free Schools and Communities
Judith A. Johnson, Director
Northwest Regional Educational Laboratory

Northwest Regional Educational Laboratory
101 S.W. Main Street, Suite 500
Portland, Oregon 97204
(503) 275-9500

Center for the Advancement of Pacific Education
1164 Bishop Street, Suite 1409
Honolulu, Hawaii 96813
(808) 533-1748

Far West Regional Educational Laboratory
1800 Folsom Street
San Francisco, California 94103
(415) 565-3000

Southwest Regional Educational Laboratory
4665 Lampson Avenue
Los Alamitos, California 90720
(213) 598-7661

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